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AI and IP: Who or What Can Be an Author or Inventor in Canada?

There have been two recent and notable developments with respect to artificial intelligence (“AI”) and intellectual property (“IP”) rights in Canada. A preliminary legal question at the intersection of AI and IP is whether AI can be granted authorship in the case of copyright or inventorship in the case of patents for something that it generated. Jurisdictions around the world are facing the same issues. This blog post discusses Canada’s first foray into this new frontier.

Copyright

The Canadian Intellectual Property Office (“CIPO”) recently registered a copyright listing an AI app as one of two co-authors of an artistic work entitled Suryast. The copyright registration lists Ankit Sahni as the owner, while the authors are listed as Sahni and “RAGHAV Artificial Intelligence Painting App”. This is significant because this is the first registration, in Canada, for AI as an author.

Interestingly, the Canadian *Copyright Act* provides that the author is the first owner of copyright, but the *Copyright Act* does not define the term author. Typically, an author is understood to be the creator of the original work who exercised skill and judgment. An author is also generally understood, in Canada, to be a natural person, *i.e.*, a human.

The fact that CIPO registered and recognized AI as a co-author is a critical first step and arguably opens the door to AI being granted status as sole author. It also raises questions about ownership rights, including: How can AI own a copyright (and have legal rights)? How can ownership of the work be assigned, if AI is the co-author of a work, and especially if AI is the sole author of a work? What role, if any, must a human play in copyright registration? Although many questions exist, with the first AI copyright registration behind us, we are bound to see exciting developments in this space over the next few years.

This Suryast copyright registration also sparks questions about whether CIPO will adopt a similar approach to patents.

Patents

On the patent front, we recently wrote about the recognition (or lack thereof) of the AI tool DABUS (Device for the Autonomous

Bootstrapping of Unified Sentience) as an inventor or owner of a patent. In that article, we described how the treatment of patent applications naming DABUS as inventor varied significantly around the globe: denial of the patent applications in the US, UK, and EU (European Patent Office decisions were recently affirmed), acknowledgement of the possibility of an AI-invented patent in Australia, and allowance of a patent in South Africa (albeit without formal examination).

In Canada, the application for a DABUS patent, CA 3137161, listed “DABUS, The invention was autonomously generated by an artificial intelligence” as the inventor, and Dr. Stephen Thaler, the creator of DABUS, as the applicant. In a November 2021 notice, CIPO advised Dr. Thaler that naming DABUS as inventor was not compliant with Canada’s *Patent Act* and *Patent Rules*, stating that:

> Subsection 27(2) of the *Patent Act* and section 54 of the *Patent Rules* require a patent application to be filed by an inventor or the legal representative of an inventor, that the inventor be identified and that the applicant file a statement of entitlement. Because for this application the inventor is a machine and it does not appear possible for a machine to have rights under Canadian law or to transfer those rights to a human, it does not appear this application is compliant with the Patent Act and Rules.

However, CIPO also suggested how this may be remedied: Dr. Thaler may attempt to comply by submitting a statement on behalf of the AI machine and identify, in said statement, himself as the legal representative of the machine.

In January 2022, the applicant requested an extension of time until August 31, 2022, to respond to CIPO’s notice, given “the complexity of the issue at hand”. Deeth Williams Wall LLP, the patent agent of record, also put out a call for applications for student researchers to assist in preparing the response, which research may be performed for academic credit under the supervision of Prof. Pina D’Agostino at Osgoode Hall Law School. This approach appears consistent with how the DABUS patent applications have been prosecuted worldwide, with academics and practitioners supporting Dr. Thaler’s push to have patent rights in AI-generated inventions recognized.

Reflective of CIPO’s notice, CIPO’s online patent database and the CIPO-generated cover page for the DABUS patent application currently list the inventor of CA 3137161 as “Unknown”.

CIPO has therefore taken a different initial tact when it comes to an AI inventor of an invention seeking patent protection than

with an AI author of a copyrighted work. Interestingly, the Canadian *Patent Act* does not define inventor, much like the *Copyright Act* does not define author. That said, an inventor is typically understood to be the person whose conception gives rise to the invention and sets that conception into a definite and practical shape.

The lack of human inventor was called out by CIPO as a key obstacle facing the DABUS application. One question that immediately comes to mind is whether this patent application would have overcome this initial obstacle if Dr. Thaler had been named as a co-inventor.

Discussion

As noted, RAGHAV is listed as co-author, and not sole author, of the work in the Canadian copyright registration. It is not clear whether and how works by AI, without human co-authorship, would receive copyright protection in Canada under the current *Copyright Act*.

There is also an interesting distinction between the human involvement in the DABUS patent application and the RAGHAV copyright registration. While the DABUS patent application names the creator of DABUS as applicant, the owner and co-author of the copyright registration for Suryast was not the creator of the AI painting app tool, but rather commissioned both the creation of the AI tool and of the work. It is not clear from the copyright registration on what basis Sahni could obtain co-authorship and ownership of copyright in such circumstances. While ownership can change hands with a transfer of legal rights to the work, authorship requires an analysis of the contribution of each potential co-author, *i.e*., the AI and the human co-authors. In creating the Suryast work, what did Sahni contribute to earn that co-author title, and how should co-authorship in similar circumstances be determined? Although copyright registration is presumed valid, a registration can be challenged in certain cases.

With copyright intended to protect original, creative works, there is an inherent tension in copyright applying to works without a human author, and questions of how to assess originality and authorship of such works. This issue was not in play before CIPO in the Suryast copyright registration. However, these issues are certainly up for discussion in Canada.

Last year, Innovation, Science and Economic Development Canada (“ISED”) ran a Consultation on a Modern Copyright Framework for AI and the Internet of Things (“IoT”), with a goal of helping ensure that Canada’s copyright framework for AI and the IoT reflects the evolving digital world.

One of the sets of policy questions raised in the Consultation Paper related to authorship and ownership of works generated by AI or works created with the assistance of AI. Questions surrounding three different possible approaches were put forward for comment in the Consultation Paper: (A) an approach to AI-generated works that attributes authorship to the human who arranged the creation of the work; (B) an approach to AI-generated works that renders them ineligible for copyright; and (C) an "authorless" approach to AI-generated works.

The consultation closed on September 17, 2021, with ISED stating that comments received are being processed and will help inform the Government's policy development process. The Suryast copyright registered in December 2021. While steps have not yet been taken to amend Canada's copyright legislation to address AI directly, the registration of a copyright listing an AI tool as a co-author may be an indication of what is to come.

The question of whether Canada will also recognize AI as an inventor, and DABUS specifically, is an open one. The continued prosecution of the DABUS patent application should provide us the first indication of an answer.

We will have to wait and see whether the patent agent response will advance one of the three different approaches ISED put into the copyright consultation, but as applied to the patent context. Based on the initial DABUS filing one might expect the response to advance option C, an "inventorless" approach to AI-generated inventions.

Will we also see an AI patent-directed consultation process coming from ISED? If so, it is not clear that such a consultation would impact the prosecution of this DABUS patent application.

Conclusion

We will need to closely watch the intersection of AI and these two areas of IP. Will they progress along similar paths or diverge in their treatment of an AI? It is difficult to envision two branches within CIPO taking different approaches to a similar issue. Further, if Canada undertakes legislative changes, will there be consistency across copyright and patent law regarding the need, or lack thereof, for human involvement in authorship and inventorship? Query too whether the courts would or could harmonize the issue.

Although much remains uncertain, a solid IP strategy for AI developers and owners is to keep a close eye on both copyright and patent law.